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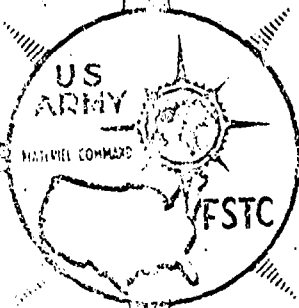
TRANSLATION

ANTIDUST MASK PTM-I

COUNTRY: USSR

U S ARMY
FOREIGN SCIENCE
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June 1965



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ANTIDUST MASK PTM-1

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ANTIDUST MASK PTM-1

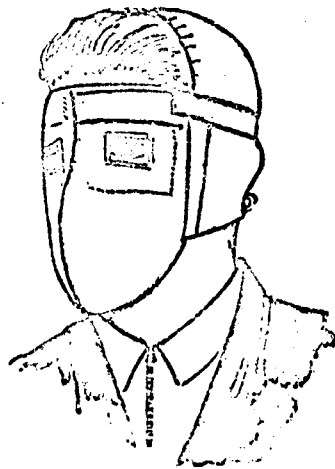
Two hours are reserved for the task of manufacturing the PTM-1 mask. During that time it is necessary to determine the size of the masks, cut the cloth according to pattern (mould), and prepare auxiliary parts (elastic, eye pieces, etc.). Sewing of the masks is done at home.

Prior to giving public instruction one must most attentively examine the rules for making a mask. One ought to make one mask completely in order to show it to the students as a model. Also prior to the training it is necessary to prepare several lay-outs for demonstrating the order of sewing and patterns for cutting the parts of all sizes of the mask.

As illustrations, patterns of the basic components of the mask are given in this article at reduced scale. Each square of the illustrations corresponds to squares of 10 x 10 mm on graph paper. We recommend the patterns of the parts of the mask be prepared for all sizes on graph-drafting paper (if none available--use writing paper with squares) precisely copying on it the outline of the component parts. After that, cut out the patterns from cardboard or durable paper. One must remember that careless preparation of the model patterns renders all of the work useless: Parts of the mask will not match up when sewing.

It is necessary in advance to forwarn the trainees to bring scissors, ruler, pencil (better if colored so it can be seen easily on fabric) needles, and thread in order that they have them for training on this subject.

For making the body of the mask two pieces of fabric (coarse calico, staple linen or knitted, plaid and others) are required with dimensions about 20 x 30 cm. The upper portion of the body of the mask will be cut from a piece of the fabric. The subsequent 2-3 components maybe prepared from children's pique, cotton cloth, fustian, cotton cloth with nap, and woollen blankets. For each layer it is necessary to have two pieces of fabric with identical size. The lower layer of the body of the mask should be cut from cloth which remains unsoiled when dampened.



Antidust Mask PTM-1

The parts of the mask maybe cut from new as well as from worn textile articles, if they are not badly threadbarren and soiled.

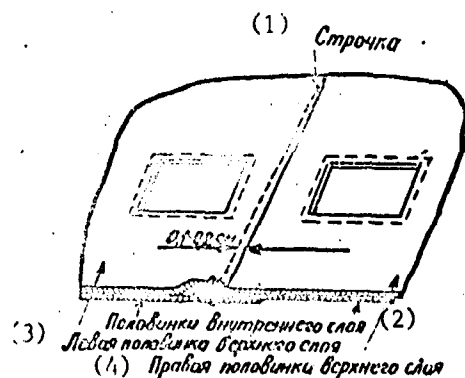
The mask is strengthened with one layer of fabric. For this it is necessary to have a piece of cloth about 35 x 60 cm, 25 cm of elastic with a width of 0.8-1.5 cm and 40 cm of elastic with a width of 1-3 cm; two pieces of braid, tape, and cord each about 45 cm for laces. The binding of the edges of the body of the mask requires a piece of fabric 3-3.5 cm wide and about 70 cm in length. The dimensions given for materials are in conformity with maximum measurements of the mask.

It is difficult for the students themselves to prepare the eye piece openings. It is desirable that the public instructor prepare the eye pieces beforehand for the entire group. The eye pieces are made 5.5 x 4.5 cm from glass, plexiglass or celluloid.

How is the training conducted?

After explaining the theme of the training, the public instructor determines the required mask sizes for each student (by length of face, as if selecting size of gasmask). At the present time seven mask sizes exist. If the length of the face is up to 80 mm, the first size mask is required, up to 90 mm--the second, up to 100 mm--the third, up to 110 mm--the fourth, up to 120 mm--the fifth, up to 130 mm--the sixth, from 131 and greater--the seventh. The first three mask sizes are designed mainly for children and youth, the last four--for adults.

After each of the trainees have determined their required mask size, the public instructor gives them the model patterns in accordance with sizes for cutting.



Method of closing the front seam of the upper part of the mask

1. Stitch
2. Halves of the inner layer
3. Left half of the outer layer
4. Right half of the outer layer

In order to cut out half of the body of the masks immediately it is best to place the layers in the following order: upper, then 2-3 inner and last--lower layer.

After having placed the pattern on prepared cloth, outline the contour with a pencil or chalk. Having drawn the contour of one half of the mask, turn the pattern on the opposite side and draw the contour of the second half.

Then begin to cut out the body of the mask. If it is difficult to cut immediately all layers, then separate them and cut out separately. Those layers which have been cut are placed in the order as directed, trim and indicate the area for eye piece openings.

After checking how the students of the group cut out the body, the instructor moves on to the next stage--cutting of the reinforcement binders of the mask. For this a scrap of cloth is folded in two halves. At the line extremities place the corresponding edges of the model patterns and outline the contour. After that, the pieces of fabric 3-3.5 cm in width are cut out for the folded edges of the body of the mask (if there are no braids). Their length depends on the size of the mask. With this the cutting out of component parts ceases and basting of the parts and rules for sewing are explained.

After sewing the body, one should begin to work on the eye piece openings. The left half of the outer layer of the mask is folded over one half of the inner layer with the wrong side to the top. The eye piece opening is made exactly according to the outline by the stitch and is cut at a distance of 0.5 cm from it. The instructor shows the student group the example which was prepared beforehand; how the upper layer was extended through the eye piece opening and where both layers match up again (at a distance 0.2 cm from the edges). Making the eye piece openings on the remaining layers of the left half (lower part) and on both parts of the right half proceeds the same way.

If the inner basting includes three layers, then the eye piece opening on the lower halves of the mask is made with two layers. The instructor should show the trainees the finished product of the left half of the mask.

After that he explains how to join the left and right halves of the body. They are placed face to face, matching up the eye piece openings and edges. Then they trim the seam at a width of 0.8 cm and place it over the left half. After turning back the edge of the left half of the inner layer of the mask body, it should be as shown in the picture. The joining of the left and right halves of the lower part is done in the following manner.

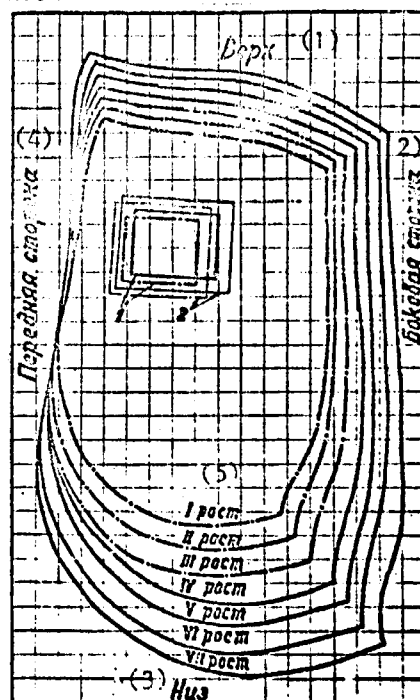
The layers of the body of the mask are sewn together to a distance of 1 cm from the side and lower edges of the eye piece openings. For this, the eye piece openings and edges of the mask are precisely matched up. After that, the instructor demonstrates how to place the eye piece into the prepared pocket between the layers of the mask and secure it at the top.

The order of further work is associated with the prepared model and reinforcement of the mask. Sewing of the reinforcement includes basting, hemming of cutouts for strengthening the braids, hemming edges of seams to a width of 2 cm for braids and elastic. On the prepared model the instructor demonstrates how to place the reinforcement on the body of the mask by sewing on the braids and transversal of elastic.

At the conclusion of the training one must emphasize that individual drive is required to complete a mask. If it is large, the edge of the body under the chin is sewed at 0.5-2 cm and the elastic on the upper edge of the reinforcement is shortened. If the mask is small, its body under the chin is trimmed to 0.5-2 cm, and the elastic reinforcement of the upper mask is lengthened.

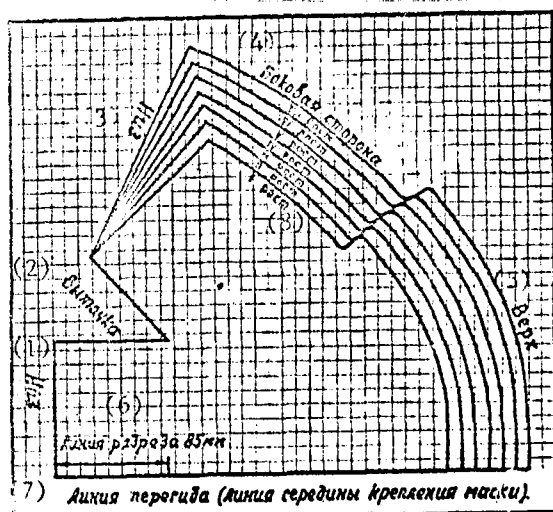
After answering the students' questions, the public instructor gives a task to each trainee which concerns sewing a mask and using individual initiative. The activity of this theme has a specific character. In order that it is conducted well, it is necessary that the instructor and committee of the primary organization DOSAAF incite judicious initiative. In an industrial enterprise or an institution where draftsmen work, one should speak to the administration in order that patterns for mask cutouts are prepared beforehand for all members of the circle (training group) by the draftsmen. Where there are no draftsmen, participants of the senior classes of medium schools may aid in preparing the cutouts.

For conducting the training of the group it is advisable to induce the women of the group who know how to sew to teach a course in cutting and sewing.



Pattern of the body of mask: 1--Cut for outline of eye piece opening; 2--place for basting eye piece opening.

1. Top
2. Flank side
3. Bottom
4. Forward side
5. Size one



Pattern of mask reinforcement.

1. Bottom
2. Tuck
3. Bottom
4. Flank side
5. Top
6. Line of cut 85 mm
7. Line of limitation (line of average mask reinforcement)
8. Size one